

AMENDMENTS TO THE CLAIMS:

Claims 1-32 (Cancelled)

33. (New) An apparatus comprising:

a head; and

a head support device including

(i) a support arm, with said head at one end of said support arm,

(ii) an elastic member near another end of said support arm; and

(iii) a first base arm,

wherein an end of said elastic member is fixed to said first base arm, and one of said support arm and said first base arm has a rotation supporting point.

34. (New) The apparatus according to claim 33, wherein

said elastic member is one-piece with said support arm and positioned along a longitudinal center line of said support arm.

35. (New) The apparatus according to claim 33, further comprising:

a head slider on which said head is mounted, with said head slider being disposed at said one end of said support arm via a flexure.

36. (New) The apparatus according to claim 35, further comprising:

a balancer at said another end of said support arm such that said rotation supporting point is between said balancer and said head slider.

37. (New) The apparatus according to claim 36, wherein

said head slider has a length L_s in a direction of air flow from an air inflow end of said head slider to an air outflow end of said head slider and exhibits an immovable point when said head slider is rotated in a direction of pitch, such that when an external impact force is applied to said head slider,

with a distance from an action point of a , that activates said head slider toward the recording medium, to the immovable point being L_o , $0.5 < L_o / L_s < 2$.

38. (New) The apparatus according to claim 37, wherein
the immovable point is obtained from a ratio of rotational rigidity of an air layer, generated between a surface of said head slider and a recording medium when said head slider opposes the recording medium, to rotational rigidity with respect to vertical displacement of said head slider.

39. (New) The apparatus according to claim 37, wherein
a center of gravity of said head slider corresponds to an action point of a negative force, when generated to activate said head slider toward a recording medium.

40. (New) The apparatus according to claim 37, wherein
an equivalent mass of said head support device is less than a suction to be generated toward a recording medium on an air lubricated surface of said head slider.

41. (New) The apparatus according to claim 36, wherein
said head slider has a length L_s in a direction of air flow from an air inflow end of said head slider to an air outflow end of said head slider, exhibits an immovable point when said head slider is rotated in a direction of pitch, and exhibits a pitch angle θ_p when said head slider is afloat over a surface of a recording medium whereby a distance X_t is defined between the surface of the recording medium and the air outflow end of said head slider, such that when an external impact force is applied to said head slider, with a distance from an action point of load, that activates said head slider toward the recording medium, to the immovable point being L_o ,

$$1 \leq L_o / L_d \leq 2.5,$$

$$\text{wherein } L_d = (L_s / 2) + (X_t / \tan (\theta_p)).$$

42. (New) The apparatus according to claim 41, wherein
the immovable point is obtained from a ratio of rotational rigidity of an air layer, generated between a surface of said head slider and a recording medium when said head slider opposes the recording medium, to rotational rigidity with respect to vertical displacement of said head slider.

43. (New) The apparatus according to claim 41, wherein
an equivalent mass of said head support device is less than a suction to be generated toward a recording medium on an air lubricated surface of said head slider.

44. (New) The apparatus according to claim 36, further comprising:
a positive pressure generating section on a surface of said head slider that is to oppose a recording medium, said positive pressure generating section including

(i) a first positive pressure generator spaced a predetermined distance from an air inflow end of said head slider, said first positive pressure generator being perpendicular to a direction of air flow to be created, and

(ii) a second positive pressure generator spaced a predetermined distance from an air outflow end of said head slider, said second positive pressure generator being at a widthwise center of said head slider and perpendicular to the direction of air flow to be created, and

a negative pressure generator between said first positive pressure generator and said second positive pressure generator, said negative pressure generator being formed so that a center of negative force, when generated to activate said head slider toward the recording medium, is positioned closer to said air outflow end of said head slider than to an action point of the negative force.

45. (New) The apparatus according to claim 44, further comprising:
a side rail on each widthwise side of said surface of said head slider, each said side rail being connected to said first positive pressure generator.

46. (New) The apparatus according to claim 45, wherein
said negative pressure generator is adjacent an intermediate surface, with said intermediate surface being at a level that is between a level at which a surface of said negative pressure generator is located and a level at which a surface of said positive pressure generating section is located.

47. (New) The apparatus according to claim 44, wherein
said negative pressure generator is adjacent an intermediate surface, with said intermediate surface being level that is between a level at which a surface of said negative pressure generator is located and a level at which a surface of said positive pressure generating section is located.

48. (New) The apparatus according to claim 33, wherein
said elastic member is symmetrical with respect to a longitudinal center line of said support arm, and is defined by one of a U-shaped, V-shaped and \sqsupset -shaped through-hole in said support arm so as to be tongue-shaped.

49. (New) The apparatus according to claim 33, wherein
said rotation supporting point includes two pivots.

50. (New) The apparatus according to claim 49, further comprising:
a head slider connected to said support arm via a flexure; and
a balancer on said support arm,
wherein said head is mounted on said head slider such that an overall center of gravity, which is a composite of respective centers of gravity of said head slider, said flexure, said support arm, and said balancer, is positioned on a line that interconnects respective peaks of said two pivots.

51. (New) The apparatus according to claim 49, wherein
said two pivots are symmetrical with respect to a longitudinal center line of said support arm.

52. (New) The apparatus according to claim 33, further comprising:
a side reinforcement at a longitudinal side of said support arm.

53. (New) The apparatus according to claim 52, wherein said side reinforcement is formed
by bending a portion of said support arm.

54. (New) The apparatus according to claim 33, wherein
said first base arm has a coupling portion at one end of thereof, and further comprising:
a second base arm having a hole at one end thereof for receiving said coupling portion so as
to fasten said first base arm to said second base arm;
a bearing portion; and
a driving device at another end of said second base arm.

55. (New) An apparatus comprising:
a head on a surface of a head slider that is to oppose a recording medium; and
a head support device including
 (i) a support arm, with said head at one end of said support arm,
 (ii) an elastic member near another end of said support arm; and
 (iii) a first base arm,
 wherein an end of said elastic member is fixed to said first base arm, and one of said
support arm and said first base arm has a rotation supporting point, and
 wherein said head is spaced from said rotation supporting point in a longitudinal
direction of said support arm.

56. (New) The apparatus according to claim 55, wherein
said elastic member is one-piece with said support arm and positioned along a longitudinal
center line of said support arm.

57. (New) The apparatus according to claim 55, wherein
said head slider is disposed at said one end of said support arm via a flexure.

58. (New) The apparatus according to claim 55, wherein
said elastic member is symmetrical relative to a longitudinal center line of said support arm,
and is defined by one of a U-shaped, V-shaped and \sqsupset -shaped through-hole in said support arm so as
to be tongue-shaped.

59. (New) The apparatus according to claim 55, wherein
said rotation supporting point includes two pivots.

60. (New) The apparatus according to claim 55, further comprising:
a side reinforcement at a longitudinal side of said support arm.

61. (New) The apparatus according to claim 55, wherein said first base arm has a coupling
portion at one end thereof, and further comprising:
a second base arm having a hole at one end thereof for receiving said coupling portion so as
to fasten said first base arm to said second base arm;
a bearing portion; and
a driving device at another end of said second base arm.

62. (New) A disk drive, comprising:
a rotational driving device for rotating a recording medium having a recording medium layer
on a surface thereof;
a head slider having a head thereon;
a head support device including
(i) a support arm, with said head slider at one end of said support arm,
(ii) an integral elastic member another end of said support arm, said elastic member
being located along a longitudinal center of said support arm,

- (iii) a balancer at said another end of said support arm, and
- (iv) a first base arm,

wherein an end of said elastic member is fixed to said first base arm, and one of said support arm and said first base arm has a rotation supporting point, and

a driving device, with said head slider being at one end of said head support device and said driving device being at another end of said head support device.

63. (New) A disk drive, comprising:

a rotational driving device for rotating a recording medium having a recording medium layer formed on a surface thereof;

a head slider having a head thereon;

a head support device including

- (i) a support arm, with said head slider at one end of said support arm,
- (ii) an integral elastic member near another end of said support arm, said elastic member being located along a longitudinal center of said support arm,
- (iii) a balancer at said another end of said support arm, and
- (iv) a first base arm,

wherein an end of said elastic member is fixed to said first base arm, and one of said support arm and said first base arm has a rotation supporting point, and said head, when opposing the recording medium, is spaced from said rotation supporting point in a longitudinal direction of said support arm; and

a driving device, with said head slider being at one end of said head support device and said driving device being at another end of said head support device.